Summary

S.1 Project Description

The State of California Department of Transportation (Department) proposes to widen State Route 74 (SR-74) from two lanes to four lanes from Calle Entradero (Post Mile [PM] 1.0) to the City of San Juan Capistrano (City)/County of Orange (County) limits (eastern City limit) (PM 1.9). The Department is the Lead Agency for the California Environmental Quality Act (CEQA) and the City is a Responsible Agency under CEQA. The total length of the project is approximately 0.9 mile (mi). Figures 1-1 and 1-2 show the regional location of the project and project vicinity maps. Additionally, this project is included in the Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP), as amended, and is also listed under State Highway projects on page 11 of the 2006 Regional Transportation Improvement Program (RTIP).

The existing SR-74 alignment consists of four through lanes from I-5 that transition into three through lanes which, at approximately 330 feet (ft) east of Calle Entradero, transition into two through lanes.

Five roadways intersect with SR-74 from the south, within the project limits: Calle Entradero, Via Cordova, Via Cristal, Via Errecarte, and Avenida Siega. North of SR-74, Via Cordova becomes Hunt Club Drive, Avenida Siega becomes Shade Tree Lane, and Via Cristal and Via Errecarte are T intersections. Additionally, to the north of SR-74, Strawberry Lane, Toyon Drive, and Palm Hill Drive provide access to hillside private properties.

Sidewalks exist intermittently throughout the project area on the north and south sides of SR-74. These sidewalks begin outside the western limits of the project.

S.2 Purpose and Need

S.2.1 Project Purpose

The purpose of the project is to accomplish the following specific objectives:

 Relieve existing and future traffic congestion and improve the flow of traffic on SR-74.

- Accommodate planned growth and development in the surrounding areas.
- Provide improvements consistent with local planning documents.
- Gap closure.

The project is a proposed solution to the deficiency identified in the need statement below.

S.2.2 Project Need

SR-74 serves as a key connection route between Orange and Riverside Counties. The closest other roadways that provide this connection are State Route 91 (SR-91), located approximately 26 mi to the north, and State Route 76 (SR-76), which is approximately 32 mi to the south. Both of these facilities are heavily traveled. As a result of the distance to alternative connectors, SR-74 experiences a consistent amount of regional traffic, despite the rural design of much of the roadway. In addition to serving this regional demand, the subject segment of SR-74 also serves as a primary access to the City. Because of topography, SR-74 is one of the few arterial highways within the City that extends to the east much beyond I-5.

The City developed a Circulation Element as part of the General Plan for City planning policies. The plan evaluates the transportation needs of the community within the framework of the planned transportation network of the county, region, and state. The Orange County Master Plan of Arterial Highways (MPAH) and the City of San Juan Capistrano designate Ortega Highway as a primary arterial highway, a four-lane divided roadway. In Table C-6 of the City's Circulation Element, the widening of Ortega Highway is planned as a long-range roadway improvement and is to be widened to four lanes from Calle Entradero to the east City limits.

The City has a 2002 Strategic Transportation Plan (STP) that includes the widening of Ortega Highway. The plan evaluated local and regional transportation issues and land development projects to assess the significant traffic impacts on the City's streets and State highways.

The need for this project is based on an assessment of the existing and future transportation demand and current and predicted future traffic on SR-74 as measured by level of service (LOS). LOS is based on the ratio of traffic volume to the design capacity of the facility. It is expressed as a range from LOS A (free traffic flow with low volumes and high speeds resulting in low densities) to LOS F (traffic volumes

exceed capacity and result in forced flow operations at low speeds, resulting in high densities).

The following discussion demonstrates existing and forecast traffic demand on SR-74.

Existing Deficiencies

Increasing traffic on SR-74 has degraded the highway LOS, particularly during peak hours. During the a.m. peak hour, the highway experiences between LOS D and LOS E and during the p.m. peak period, LOS D.

The existing SR-74 is four through lanes (two travel lanes in each direction) from I-5 to approximately 330 ft east of Calle Entradero, where it transitions to three through lanes and then to two through lanes (one travel lane in each direction). The widening of SR-74 east of the City limits, known as the Lower 74 Widening Project-County Portion, is currently being widened to four through lanes from 2,000 ft east of the Antonio Parkway/La Pata Avenue intersection to the City limits. The lead agency for the portion east of the City limits is the County of Orange. Following construction of the County portions of the SR-74 widening, SR-74 will be four through lanes both east and west of the project limits for the City portions. Therefore, the two-lane section of SR-74 proposed to be widened to four lanes for the City portions is an existing choke point that results in traffic congestion as the roadway narrows to two lanes east of Calle Entradero. The City portions of the widening project would provide a gap closure that would relieve traffic congestion by widening SR-74 to four lanes through the project limits. Following construction of the City portions, SR-74 would be four through lanes from I-5 to 2,000 ft east of the Antonio Parkway/La Pata Avenue intersection.

Projected Deficiencies

Traffic congestion through the project area is expected to increase with the continued growth in the region. By 2035, the LOS on SR-74 is projected to deteriorate to substandard levels. The mainline would operate at LOS F in 2035 in the peak hours if SR-74 is not improved. There would be considerable delay.

Social and Economic Demands

A review of the growth projections adopted by SCAG indicates continuing growth in the region that the project serves. The population in Orange County is expected to increase from 2.8 million in 2000 to over 3.7 million in 2035, an increase of nearly 25 percent. Growth in Riverside County is projected to increase from 1.5 million in

2000 (U.S. Census Bureau 2000) to 3.6 million in 2035 (Riverside County Projections 2006), an increase of 140 percent. This regional growth will continue to place a high demand on SR-74.

The following are the alternatives under consideration. For more detailed information, please refer to Chapter 1, Project Description.

Build Alternatives 1 and 2

Common Features of the Build Alternatives

- Intersection improvements.
- Reconstruction of driveways.
- Addition of pedestrian and bicycle facilities.
- Right-of-way acquisitions (sliver acquisitions).
- Cut and fill.
- Drainage improvements.
- Retaining walls.
- Noise attenuation.
- Signals and lighting.
- Utilities.
- Pavement rehabilitation.

Unique Feature of Build Alternative 1

• Removal of existing meandering sidewalk.

Unique Features of Build Alternative 2.

- Reconstructed sidewalk.
- Retaining walls (in addition to those noted under Common Features listed above).

No Build Alternative

The No Build Alternative would not include any improvements to the project and would result in substantial delays in traffic and LOS F operating conditions along the mainline.

Planning Status

The estimated cost for the project is approximately \$26,200,000. The project is funded by the County of Orange. Construction for this project is proposed to start

Fiscal Year 2013/2014 and anticipated to be completed within approximately eighteen months.

S.3 Areas of Controversy and Unresolved Issues

An Initial Study with proposed Mitigated Negative Declaration (IS [Proposed MND]) prepared by the Department was circulated in July 2007 that addressed the environmental effects of the proposed SR-74 Widening Project. Based on comments received during public review of the previously circulated environmental document for this project, an Initial Study with Proposed Mitigated Negative Declaration (IS [Proposed MND]), as well as comments received during several public information meetings, the following public concerns have been raised:

- Noise attenuation.
- Removal of the meandering sidewalk along the north side of SR-74 under Alternative 1.
- Visual impacts to the SR-74 corridor.
- Community interest in the addition of a traffic signal.

As a response to these public concerns, the Department decided that an Environmental Impact Report (EIR) was necessary to analyze the environmental impacts for the proposed SR-74 widening from Calle Entradero (PM 1.0) to the City/County limits (PM 1.9). A Notice of Preparation (NOP) for the Draft EIR was circulated for public review for a 30-day period from January 18 to February 19, 2008.

Special attention has been paid to these concerns during the preparation of this Final EIR and its revised technical studies. Each substantive environmental comment received on the IS (Proposed MND) has been considered and addressed in this Final EIR. These comments can be found in Appendix H (bound separately). Technical studies completed for the IS (Proposed MND) have been updated for the Final EIR to address the comments. A list of these studies can be found in Appendix F.

S.4 Summary of Potential Impacts by Alternative

Table S-1 summarizes the potential adverse impacts of the Build and No Build Alternatives, based on the findings of this Final EIR. Discussion of the Preferred Alternative is provided in Section 1.5.4 of the Final EIR.

S.5 Circulation of the Draft Environmental Document

This Draft EIR for the project has been circulated and made available for public comment. The public circulation process required by CEQA requires a minimum 45-day comment period. However, for this project the Department allowed for a 60-day review period starting December 1, 2008, and ending on January 30, 2009, in order to provide adequate time for review and comment due to the holidays. At the request of the City of San Juan Capistrano, the public review period was extended an additional 15 days, until February 14, 2009, for a total of a 75-day review period. Refer to Chapter 3 for further information regarding the circulation of the Draft Environmental Document.

S.6 Selection of Preferred Alternative

The Project Development Team (PDT) is a group consisting of the Department, City, environmental consultants, and engineering consultants. Based on the results of the PDT meeting held on April 30, 2009, Alternative 2 was selected as the Preferred Alternative. Please refer to Section 1.5.4 for additional information regarding the selection of the Preferred Alternative.

S.7 Permits and Approvals Needed

As shown in Table S-2, the following permits, reviews, and approvals will be required prior to the construction of the proposed project.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Land Use (Temporary)	This alternative would have no temporary impact on land use since construction is not required.	This alternative will have no temporary land use impacts.	This alternative will have no temporary land use impacts.	None required.	No impact.
Land Use (Permanent)	This alternative would be inconsistent with the City's General Plan.	This alternative will have less than significant land use impacts due to sliver acquisitions and will not conflict with adopted goals or policies.	This alternative will have less than significant land use impacts due to sliver acquisitions and will not conflict with adopted goals or policies.	None required.	Less than significant.
Growth (Temporary)	The No Build Alternative does not require construction; therefore, there would be no temporary impacts on growthinducing factors.	Build Alternative 1 would not have any temporary impacts on growth-inducing factors since temporary construction does not induce growth.	Build Alternative 2 would not have any temporary impacts on growth-inducing factors since temporary construction does not induce growth.	None required	No impact.
Growth (Permanent)	This alternative does not require construction; therefore, there would be no impact on growth-inducing factors.	Growth impacts of this alternative are considered less than significant since the adjacent land is built out with and/or entitled for suburban, mostly single-family, residential uses.	Growth impacts of this alternative are considered less than significant since the adjacent land is built out with and/or entitled for suburban, mostly singlefamily, residential uses.	None required.	Less than significant.
Community Impacts/ Population and Housing (Temporary)	The No Build Alternative does not increase population and housing; therefore, there would be no temporary	Build Alternative 1 would temporarily affect local communities. Temporary construction impacts would include disruption of local traffic patterns and access to	Build Alternative 2 would temporarily affect local communities. Temporary construction impacts would include disruption of local traffic patterns and access to	Implementation of the Traffic Management Plan (TMP) would minimize temporary impacts to population and housing.	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Community Impacts/ Population and Housing (Temporary)	impact on population and housing.	residences and businesses; increased traffic congestion; and increased noise, vibration, and dust.	residences and businesses, increased traffic congestion; and increased noise.		
Community Impacts/ Population and Housing (Permanent)	The No Build Alternative does not increase population and housing; therefore, there would be no temporary impact on population and housing.	Build Alternative 1 would not increase population or housing figures for the area in relation to growth, composition, or demographics since no full property acquisitions are required.	Build Alternative 2 would not increase population or housing figures for the area in relation to growth, composition, or demographics since no full property acquisitions are required.	None required.	No permanent impact.
Community Impacts/ Economics (Temporary)	The No Build Alternative would not result in temporary economic impacts since it does not require construction.	Since Build Alternative 1 does not displace any businesses, no loss of employment, loss of tax revenue, or reduction in income level is expected.	Since Build Alternative 2 does not displace any businesses, no loss of employment, loss of tax revenue, or reduction in income level is expected.	None required.	Less than significant impact.
Community Impacts/ Economics (Permanent)	Employment and tax revenue could be adversely affected due to delays for commuters and consumers. The delay in the movement of goods and services can result in increased costs to businesses, which are often passed on to the	Build Alternative 1 does not displace any businesses, and no loss of employment, loss of tax revenue, or reduction in income level is expected. The small amount of tax revenue loss from sliver acquisitions would not substantially alter the tax base.	Build Alternative 2 does not displace any businesses, and no loss of employment, loss of tax revenue, or reduction in income level is expected. The small amount of tax revenue loss from sliver acquisitions would not substantially alter the tax base.	None required.	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Community Impacts/ Economics (Permanent)	consumer. Therefore, the No Build Alternative would have a substantial impact on economics within the local community.				
Community Impacts/ Community Facilities and Services (Temporary)	The No Build Alternative would not result in temporary impacts to community facilities or services. It would not result in removal or change of access to facilities or services, nor would it create new demand for community services, since no capital improvements are included with this alternative. Therefore, the No Build Alternative would not have any temporary impact.	Build Alternative 1 would remove the sidewalk along the north side of SR-74 between Calle Entradero and Via Cordova. Temporary impacts associated with this removal would be limited.	Build Alternative 2 would straighten the existing sidewalk on the north side of SR-74 from Calle Entradero and Via Cordova. This would result in a temporary impact to pedestrian movement during construction of the realigned sidewalk.	Implementation of the TMP would minimize temporary impacts to pedestrian movement.	Less than significant.
Community Impacts/	SR-74 west of the project limits is	Build Alternative 1 would remove the sidewalk along the	Build Alternative 2 would straighten the existing	Implementation of Mitigation Measures V-1	Less than significant.
Community Facilities and	currently four lanes, and upon completion	north side of SR-74 between Calle Entradero and Via	sidewalk on the north side of SR-74 from Calle Entradero	through V-4 would reduce impacts (Key	
Services	of the County portions	Cordova. A new sidewalk	and Via Cordova. A short	Views 2 and 3) due to	
(Permanent)	SR-74, will be four	would be constructed east of	retaining wall would be	vegetation/tree removal	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance	
Community Impacts/ Community Facilities and Services (Permanent)	lanes to the east of the City limits. Therefore, under the No Build Alternative, traffic demand would exceed capacity, and speeds will vary greatly, which will result in significant delays.	Avenida Siega and would connect to the County sidewalk system to provide continuity. There would be no impact to the existing equestrian trail or to any future signal/pedestrian crossing under Build Alternative 1.	required along the existing limit of the public right-of-way. Most, if not all, of the trees within this area along the north side of the roadway would be removed. A new sidewalk would be constructed east of Avenida Siega and would connect to the County sidewalk system to provide continuity. There would be no impact to the existing equestrian trail or to any future signal/pedestrian crossing under Build Alternative 2.	and construction of walls as a result of both Build Alternatives.		

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Community Impacts/ Community Character and Cohesion (Temporary)	This alternative does not require construction; therefore, there will be no impact on community character and cohesion, and there will be no relocations.	Construction of Build Alternative 1 would temporarily affect local communities. Temporary construction impacts would include disruption of local traffic patterns and access to residences and businesses; increased traffic congestion; and increased noise, vibration, and dust.	Construction of Build Alternative 2 would temporarily affect local communities. Temporary construction impacts would include disruption of local traffic patterns and access to residences and businesses; increased traffic congestion; and increased noise, vibration, and dust.	Minimization measures include: Coordination with property owners regarding the construction schedule, and phasing shall be included in the TMP.	Temporary impacts as a result of construction are considered less than significant.
Community Impacts/ Community Character and Cohesion (Permanent)	This alternative would affect access to community facilities and services, since traffic demand will exceed capacity and speeds will vary greatly, which will result in considerable delays. An increase in forecasted congestion for the study area would result in substantial impacts to community character by increasing air	This alternative includes removal of existing vegetation (including trees) and constructing noise barriers and retaining walls. Based on the subjective human perception of community character, the widening of SR-74 in this area is a potentially significant impact on community character. Build Alternative 1 will not have an impact on community cohesion since SR-74 is an existing highway traversing the study area.	This alternative includes removal of existing vegetation (including trees) and constructing noise barriers and retaining walls. Based on the subjective human perception of community character, the widening of SR-74 in this area is a potentially significant impact on community character. Build Alternative 2 will not have an impact on community cohesion since SR-74 is an existing highway traversing	Mitigation measures include: V-1, V-2, V-3 and V-4, as discussed in Section 2.1.6, Visual/Aesthetics. Minimization measures include: Compliance with State and Federal regulations, including the Department's Right of Way Manual, which requires compensation	Permanent impacts to community character are considered significant even after mitigation is incorporated. Permanent impacts as a result of the 10 sliver acquisitions are considered less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Community Impacts/ Community Character and Cohesion (Permanent)	congestion.			property acquisitions and minimizes project impacts. Additionally, coordination with property owners regarding the construction schedule and phasing will be included in the TMP.	
Community Impacts/ Relocation (Temporary)	No temporary residential or business relocations necessitating relocation would be required under the No Build Alternative, and this alternative would have no temporary relocation impacts.	No temporary residential or business relocations necessitating relocation would be required under Build Alternative 1.	No temporary residential or business relocations necessitating relocation would be required under Build Alternative 2.	None required.	No impact.
Community Impacts/ Relocation (Permanent)	No permanent residential or business relocations necessitating relocation would be required under the No Build Alternative, and there would be no permanent impacts.	Ten small sliver acquisitions of right-of-way would be required in various locations throughout the project limits for both Build Alternatives. No permanent impacts to access are anticipated as a result of the proposed project.	Ten small sliver acquisitions of right-of-way would be required in various locations throughout the project limits for both Build Alternatives. No permanent impacts to access are anticipated as a result of the proposed project.	Compliance with the Department's Right of Way Manual would avoid relocation impacts.	No impact.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Utilities and Emergency Services (Temporary)	This alternative does not require construction; therefore, there will be no impact on utilities and emergency services.	During construction, Alternative 1 would require the relocation or protection in place of several utility facilities.	During construction, Alternative 2 would require the relocation or protection in place of several utility facilities.	Minimization measures include: The Department would coordinate with the affected service provider in each instance of relocation or protection in place to ensure that work is during times of low demand and in accordance with the appropriate requirements and criteria. Coordination with the utility providers would be initiated during the preliminary engineering phase of the project and would continue through final design and construction, consistent with Department requirements. The Department would coordinate with emergency service providers to avoid emergency service	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Utilities and Emergency Services (Temporary)				delays by ensuring that all providers are aware well in advance of temporary road closures and detours.	
				The Department would also coordinate with emergency service providers to avoid emergency service delays by ensuring that all providers are aware well in advance of temporary road closures and detours. Please see Chapter 1, Project Description for details on the Traffic Management Plan.	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Utilities and Emergency Services (Permanent)	Emergency services (police, fire, and emergency vehicle services) may be delayed as traffic congestion worsens and the level of service in the project area declines, resulting in a significant impact.	There will be no long-term disruptions in service as a result of utilities within the study area being relocated or replaced, and there are no permanent impacts to utilities.	There will be no long-term disruptions in service as a result of utilities within the study area being relocated or replaced, and there are no permanent impacts to utilities.	None required.	No impact to emergency services.
Traffic and Transportation /Bicycle and Pedestrian (Temporary)	This alternative does not require construction; therefore, there will be no impact to traffic, transportation, bicycle, or pedestrian facilities.	Temporary traffic delays and detours during construction.	Temporary traffic delays and detours during construction. Under Alternative 2, pedestrian traffic will be temporarily disrupted as the existing sidewalk on the north side of State Route 74 (SR-74) between Calle Entradero and Via Cordova is reconstructed.	Minimization measures include: A Traffic Management Plan (TMP) will be prepared for the SR-74 Widening project. During construction, some traffic delays are anticipated.	Less than significant.
Traffic and Transportation /Pedestrian and Bicycle Facilities (Permanent)	The No Build Alternative would not meet the purpose and need to enhance capacity in the long term. The mainline would operate at level of service (LOS) F. The No Build	Due to growth in traffic between 2008 and 2035, traffic exiting local streets and attempting to turn left onto westbound State Route 74 (SR-74) would incur extended delays due to a lack of gaps in the through traffic.	Due to growth in traffic between 2008 and 2035, traffic exiting local streets and attempting to turn left onto westbound State Route 74 (SR-74) would incur extended delays due to a lack of gaps in the through traffic.	The following project component will ensure that traffic and transportation impacts as a result of the proposed project are less than significant: The project will provide	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Traffic and Transportation /Pedestrian and Bicycle Facilities (Permanent)	Alternative would not address existing and forecast traffic conditions and would have significant impacts to traffic and transportation.			eastbound left-turn lanes at the unsignalized intersections and allow U-turns at these locations to alleviate side street delays. This would facilitate the movement of minor street traffic onto the State Route 74 (SR-74) via a right turn and then a U-turn at the next available intersection.	
Visual and Aesthetics (Temporary)	This alternative does not require construction; therefore, there will be no impact on visual and aesthetics.	Temporary adverse visual impacts during construction, such as views of construction activity, truck hauling, excavation activity, and detour signage. Construction impacts will cease following project completion, and adverse impacts to existing landscape would diminish and be eliminated over time as replacement landscaping matures.	Temporary adverse visual impacts will occur during construction, such as views of construction activity, truck hauling, excavation activity, and detour signage. Construction impacts will cease following project completion, and adverse impacts to existing landscape would diminish and be eliminated over time as replacement landscaping matures.	Minimization measures include: All landscaping currently maintained by the City of San Juan Capistrano (City) shall be replaced with similar landscaping.	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Visual and Aesthetics (Permanent)	This alternative does not require construction; therefore, there will be no impact on visual and aesthetics.	Implementation of Alternative 1 would widen State Route 74 (SR-74) to four lanes and would generally introduce curb and gutter, retaining wall structures, sound walls, new sidewalk (Avenida Siega to the City of San Juan Capistrano [City]/County of Orange [County] line), and ornamental landscaping throughout the project limits. This would change from a rural landscape to a more suburban landscape. Therefore, the visible change in character/quality at Key Views 1, 4 and 5 would remain significant even after implementation of mitigation measures.	Implementation of Alternative 2 would widen State Route 74 (SR-74) to four lanes and would generally introduce curb and gutter, retaining wall structures, sound walls, reconstructed sidewalk, and ornamental landscaping throughout the project limits. This would change from a rural landscape to a more suburban landscape. Therefore, the visible change in character/quality at Key Views 1, 4, and 5 would remain significant even after implementation of mitigation measures.	Minimization measures include: Erosion control seed species shall be determined by the California Department of Transportation (Department) District Landscape Architect to ensure that the mix and application strategy are appropriate for the specific soil composition of the area. To maintain the context of the adjacent communities (color, form, and texture), the project shall install landscaping along proposed wall features and adjoining hillsides that is compatible with the existing landscaping. Landscape shall include trees (where feasible), shrub/groundcover mass planting, and vines on opaque sound walls and/or retaining walls to	Less than significant for Key Views 2 and 3. Significant for Key Views 1, 4, and 5.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Visual and Aesthetics (Permanent)				soften the hardscape features and reduce the adverse environmental impacts (such as glare and radiant heat). All selected species within California Department of Transportation (Department) right-ofway shall share similar water requirements. The new landscape concept and plant palette shall be determined in consultation with the Department District Landscape Architect during the Project Design Phase.	
				All landscaping currently maintained by the City of San Juan Capistrano shall be replaced with similar landscaping. Trees that are removed shall be replaced where feasible. Where speeds are posted greater than 35 miles per hour (mph), large trees (trees with trunks over four inches	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Visual and Aesthetics (Permanent)				in diameter when mature) shall be placed outside the clear recovery zone (30 feet [ft] from the travel lane). Small trees (trees with trunks four inches in diameter or less when mature) shall be used to replace the trees within the clear recovery zone. Tree spacing for small trees can be adjusted to account for the removal of existing mature trees. All utilities that are to be moved shall be placed underground, where feasible, in coordination with the California Department of Transportation (Department) and the City of San Juan Capistrano. Mitigation measures including	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Visual and Aesthetics (Permanent)				coast live oak trees, that are removed as a result of the proposed project will be replaced by the California Department of Transportation (Department) at a minimum 2:1 ratio in accordance with Chapter 29 of the Project Development Procedures Manual for Replacement Highway Planting Policy or the Department's Landscape Architecture Program with General Highway Planting Policy, within the project limits or in suitable locations within the project area or the region. It is recommended that trees be replaced	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Visual and Aesthetics (Temporary)				with native species. V-2 In accordance with the Department's Policy on Context Sensitive Solutions and to maintain consistency with the existing infrastructure (i.e., walls, sidewalks) in the project area, architectural treatments for the structure elements of the project shall be determined in consultation with the Department District Landscape Architect and the City of San Juan Capistrano during the Plans, Specifications, and Estimate (PS&E) phase. V-3 To minimize visual impacts caused by the extensive large-scale walls, wall aesthetic	

Table S-1 Summary of Potential Impacts by Alternative

Visual and Aesthetics (Temporary) (Temporary) (Temporary) (I.e., color treatment, textural treatment, varying materials) for all new retaining walls and noise barriers within the proposed project. Structural themes (i.e., walls, sidewalk) shall be similar in character to the surrounding environment. Theme elements shall be determined	Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
the Department District Landscape Architect and the City of San Juan Capistrano during the Plans, Specifications, and Estimates (PS&E) phase. The visual simulations included in this Visual Impact Assessment	Aesthetics				enhancements shall be developed as a theme treatment (i.e., color treatment, textural treatment, varying materials) for all new retaining walls and noise barriers within the proposed project. Structural themes (i.e., walls, sidewalk) shall be similar in character to the surrounding environment. Theme elements shall be determined in consultation with the Department District Landscape Architect and the City of San Juan Capistrano during the Plans, Specifications, and Estimates (PS&E) phase. The visual simulations included in this Visual Impact	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Visual and Aesthetics (Temporary)				wall treatments only and are subject to change to reflect themes determined to be most appropriate after consultation with the City of San Juan Capistrano.	
				V-4 To minimize visual impacts caused by the replacement sidewalk, aesthetic enhancements shall be implemented (i.e., color treatment, textural treatment, varying setbacks from the highway, use of material other than concrete) for the replacement sidewalk, in accordance with V-3.	
Cultural Resources (Temporary)	This alternative does not require construction; therefore, there will be no impact on cultural	There are no temporary impacts to cultural resources.	There are no temporary impacts to cultural resources.	None required.	No impact.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
	resources.				
Cultural Resources (Permanent)	This alternative does not require construction; therefore, there will be no impact on cultural or historical resources.	Potential to encounter cultural resources and human remains during construction. Since the portions of the Manriquez Adobe site within the proposed area of direct impact (ADI) are not expected to contain information-bearing deposits and, therefore, are noncontributing elements to the larger property. There will be no significant impacts to this resource within the project limits due to the establishment of an Environmentally Sensitive Area (ESA) to protect the resource.	Potential to encounter cultural resources and human remains during construction. Since the portions of the Manriquez Adobe site within the proposed area of direct impact (ADI) are not expected to contain information-bearing deposits and, therefore, are noncontributing elements to the larger property. There will be no significant impacts to this resource within the project limits due to the establishment of an Environmentally Sensitive Area (ESA) to protect the resource.	Avoidance and Minimization Measures include: If buried cultural materials are encountered during construction, it is the California Department of Transportation's (Department) policy that construction activities in the immediate vicinity of the find halt until a qualified archaeologist can evaluate the nature and significance of the find. If human remains are discovered during construction activities, State Health and Safety Code Section 7050.5 states that further disturbances and activities shall cease in the area or nearby area suspected to overlie remains, and that the County Coroner be	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Cultural Resources (Permanent)				contacted. Pursuant to Public Resources Code (PRC) Section 5097.98, if the remains are thought to be Native American, the Coroner will notify the Native American Heritage Commission (NAHC), which will then notify the Most Likely Descendant (MLD). At this time, the person who discovered the remains will contact the Resident Engineer for coordination with the MLD on the respectful treatment and disposition of the remains. Further provisions of PRC Section 5097.98 are to be followed as applicable. Establishment of an	
				Environmentally Sensitive Area (ESA) Action Plan. The ESA Action Plan includes: the ESA fencing along the Direct APE to ensure	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Cultural Resources (Permanent)				that no equipment inadvertently impacts information-bearing portions of the Manriquez Adobe Site.	
Hydrology and Floodplain (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to hydrology and floodplain.	Build Alternative 1 would not include construction involving any water bodies. Therefore, there will be no significant temporary hydrology impacts.	Build Alternative 2 would not include construction involving any water bodies. Therefore, there will be no significant temporary hydrology impacts.	None required.	No impact.
Hydrology and Floodplain (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to hydrology and floodplain.	Runoff would increase due to the construction of 2.3 acres (ac) of additional paved area for Alternative 1. As a part of the widening project, Build Alternative 1 proposes to construct additional drainage systems consisting of new inlets with bicycle-proof grates and pipes and to replace an existing trapezoidal channel with a reinforced concrete box culvert. The Build Alternatives would not permanently impact designated 100- or 500-year	Runoff would increase due to the construction of 2.4 ac of additional paved area for Alternative 2. As a part of the widening project, Build Alternative 2 proposes to construct additional drainage systems consisting of new inlets with bicycle-proof grates and pipes and to replace an existing trapezoidal channel with a reinforced concrete box culvert. The Build Alternatives would not permanently impact designated 100- or 500-year	Minimization measures include: The completed project plans would incorporate all necessary Maintenance Best Management Practices (BMPs) (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the Maximum Extent Practical (MEP) requirements.	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Water Quality and Storm Water Runoff (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to water quality and storm water runoff.	During construction, Alternative 1 would require approximately 4.54 acres (ac) of soil disturbance. Erosion and siltation in the drainage area may temporarily increase during project construction. Geotechnical soil borings will determine the elevation of groundwater with respect to the elevations of the footings and/or foundations of the sound walls and retaining walls. Dewatering is not anticipated. However, if dewatering is required for the project, it would only be temporary from construction activities.	During construction, Alternative 2 would require approximately 4.54 acres (ac) of soil disturbance. Erosion and siltation in the drainage area may temporarily increase during project construction. Geotechnical soil borings will determine the elevation of groundwater with respect to the elevations of the footings and/or foundations of the sound walls and retaining walls. Dewatering is not anticipated. However, if dewatering is required for the project, it would only be temporary from construction activities.	Minimization measures include: Potential temporary surface and groundwater water quality impacts associated with construction of Build Alternative 2 would be avoided or minimized through compliance with the existing California Department of Transportation (Department) National Pollutant Discharge Elimination System (NPDES) permit. A Storm Water Pollution Prevention Plan (SWPPP) will be prepared to address construction-related impacts under Build Alternatives 1 and 2. If groundwater dewatering is required during construction, the Contractor shall comply with the General Waste	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Water Quality and Storm Water Runoff (Temporary)				Discharge Requirements for Groundwater Extraction Waste Discharges from Construction, Remediation, and Permanent Groundwater Extraction Projects to Surface Waters within the San Diego Region except for San Diego Bay (Order No. 2001-96, NPDES No. CAG919002) or any subsequent permit/order at time of construction. Construction site Best Management Practices (BMPs) will be implemented.	
Water Quality and Storm Water Runoff (Permanent)	As traffic increases, the length of time vehicles are stationary or moving slowly grows. This will lead to greater amounts of fluids from vehicles on the roadway. This would lead to a slight increase but is considered a less than	Alternative 1 would increase the percentage of impervious area in the project limits by 42 percent. The average runoff coefficient for the project limits would increase from 0.87 cubic feet per second (cfs) preconstruction to 0.88 cfs postconstruction, an increase of 1.1 percent.	Alternative 2 would increase the percentage of impervious area in the project limits by 42 percent. The average runoff coefficient for the project limits would increase from 0.87 cubic feet per second (cfs) preconstruction to 0.88 cfs postconstruction, an increase of 1.1 percent.	Minimization measures include: The completed project plans would incorporate the Department's Storm Water Management Plan (SWMP) which outlines all necessary Maintenance Best Management Practices	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Water Quality and Storm Water Runoff (Permanent)	significant impact to the amount of pollution in storm water runoff and a minor reduction in water quality.	Postconstruction erosion can possibly occur from cut slopes. Less runoff would be allowed to percolate into the local portion of the groundwater basin.	Postconstruction erosion can possibly occur from cut slopes. Less runoff would be allowed to percolate into the local portion of the groundwater basin.	(BMPs) (Category IA), Design Pollution BMPs (Category IB), and Treatment BMPs (Category III) to meet the Maximum Extent Practical (MEP) requirements.	
Geology, Soils, Seismic, and Topography (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to geology, soils, seismic shaking, or topography.	Build Alternative 1 would alter existing topography due to construction grading and construction of cut-and-fill slopes. Temporary erosion effects could occur due to project construction. These effects are discussed in Section 2.2.2, Water Quality and Storm Water Runoff.	Build Alternative 2 would alter existing topography due to construction grading and construction of cut-and-fill slopes. Temporary erosion effects could occur due to project construction. These effects are discussed in Section 2.2.2, Water Quality and Storm Water Runoff.	Implementation of erosion control Best Management Practices (BMPs) in the Storm Water Pollution Prevention Plan (SWPPP), as discussed in Section 2.2.2, Water Quality and Storm Water Runoff.	Less than significant.
Geology, Soils, Seismic, and Topography (Permanent)	The No Build Alternative does not involve any construction and would not alter the existing landscape. Therefore, there would be no impact to geology, soils, seismic shaking, or topography.	As previously discussed, the project is located in a seismically active area where, south of the State Route 74 (SR-74), liquefaction is considered potentially high. The project will be constructed according to seismic design parameters, and impacts are considered less than significant.	As previously discussed, the project is located in a seismically active area where, south of the State Route 74 (SR-74), liquefaction is considered potentially high. The project will be constructed according to seismic design parameters, and impacts are considered less than	Minimization measures include: During final design, the Department shall prepare a Final Geotechnical/Structures Design Report for the project, refining the existing Preliminary Design Report. The	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Geology, Soils, Seismic, and Topography (Permanent)		Areas north of SR-74 within the project limits have been identified as having a potential for earthquake-induced landslides. The proposed project is located in an area that may be subject to liquefaction. However, the Department considers the possibility of seismic activity and includes design standards to minimize and avoid potential significant impacts from seismic events.	significant. Areas north of SR-74 within the project limits have been identified as having a potential for earthquake-induced landslides. The proposed project is located in an area that may be subject to liquefaction. However, the Department considers the possibility of seismic activity and includes design standards to minimize and avoid potential significant impacts from seismic events.	Final Design Report shall include detailed site testing and design recommendations based on the recommendations in the Preliminary Design Report. The recommendations of the Final Design Report shall be incorporated into the final design for the project. Since liquefaction is a factor in certain areas within the project limits, the project shall incorporate deepened foundations and/or increased depth of piles as needed.	
Paleontology (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to paleontological resources.	There are no temporary impacts to paleontological resources.	There are no temporary impacts to paleontological resources.	None required.	No impact.
Paleontology (Permanent)	No impact.	Under Build Alternative 1, there is a potential to excavate into several geologic units and formations that contain	Under Build Alternative 2, there is a slightly higher potential than Build Alternative 1 to excavate into	Minimization measures include: A Paleontological	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Paleontology (Permanent)		paleontological significant vertebrae fossils.	several geologic units and formations that contain paleontological significant vertebrae fossils.	Mitigation Plan (PMP) will be prepared. Additional recommendations include conducting a preconstruction field survey and conducting monitoring for paleontological resources during construction.	
Hazardous Waste and Materials (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to hazardous waste and materials.	Power pole-mounted electrical transformers were observed within the project limits and although according to San Diego Gas and Electric (SDG&E), these transformers use non-polychlorinated biphenyls (PCB)-containing oils, the specific contents of these transformers are unknown and are considered a potential for environmental concern.	Power pole-mounted electrical transformers were observed within the project limits and although according to San Diego Gas and Electric (SDG&E), these transformers use non-polychlorinated biphenyls (PCB)-containing oils, the specific contents of these transformers are unknown and are considered a potential for environmental concern.	Avoidance measures include: Prior to construction, utility pole-mounted transformers, if any, within the project area will be inspected for leaks. Leaking transformers are considered a potential polychlorinated biphenyl (PCB) hazard unless tested and should be handled appropriately. Transformers that are proposed to be disturbed or removed during construction activities shall be tested for potential PCB	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Hazardous Waste and Materials (Temporary)		Yellow traffic stripe and pavement marking materials (paint, thermoplastic, permanent tape, and temporary tape) were observed within the project limits during the visual site survey conducted for the Initial Site Assessment (ISA). Yellow paint traffic stripes used prior to 1997 may exceed hazardous waste criteria under Title 22 California Code of Regulations (CCR) and require disposal in a Class I disposal site.	Yellow traffic stripe and pavement marking materials (paint, thermoplastic, permanent tape, and temporary tape) were observed within the project limits during the visual site survey conducted for the Initial Site Assessment (ISA). Yellow paint traffic stripes used prior to 1997 may exceed hazardous waste criteria under Title 22 California Code of Regulations (CCR) and require disposal in a Class I disposal site.	Mitigation Measures) hazards during Plans, Specifications, and Estimates (PS&E). Avoidance measures include: Yellow thermoplastic and yellow paint traffic stripes shall be tested during the design phase. The striping will be disposed of according to the California Department of Transportation (Department) SSP XE 15-300 Notify the Underground Service Alert of Southern California at least two working days prior to subsurface excavation to ensure that utility owners mark the locations of	
				underground transmission lines and facilities Prior to the start of construction, a site-	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Hazardous Waste and Materials (Temporary)				specific Health and Safety Plan shall be prepared for the proposed project that is consistent with California Department of Transportation (Department) requireme nts. For any previously unknown hazardous waste/material encountered during construction, the procedures outlined in Appendix H (Caltrans Unknown Hazards Procedures) will be followed.	
Hazardous Waste and Materials (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to hazardous waste and materials.	Permanent impacts (direct or indirect) related to hazardous materials are not anticipated as a result of project implementation.	Permanent impacts (direct or indirect) related to hazardous materials are not anticipated as a result of project implementation.	None required.	No impact.
Air Quality (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to air quality.	Project construction has the potential to create temporary air quality impacts from exhaust emissions and fugitive dust emissions.	Project construction has the potential to create temporary air quality impacts from exhaust emissions and fugitive dust emissions.	Minimization Measures include: Compliance with the South Coast Air Quality Management District	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Air Quality (Temporary)				including Best Available Control Measures (BACMs) and the California Department of Transportation's (Department) Standard Specifications for construction will reduce the temporary impacts. All disturbed areas, including storage piles that are not being actively used for construction purposes, shall be effectively stabilized for dust emissions using water, chemical stabilizers/ suppressants, or vegetative ground cover, as appropriate.	
Air Quality (Permanent)	Traffic congestion would continue to increase. Long-term mobile emissions generated by vehicle trips would be greater under the No Build Alternative. Since the No Build Alternative would not improve air	Build Alternative 1 is not expected to generate any additional traffic compared to the No Build Alternative. Regional traffic trips would remain similar. Therefore, no new long-term regional emissions would result from implementation of Build Alternative 1.	Build Alternative 2 is not expected to generate any additional traffic compared to the No Build Alternative. Regional traffic trips would remain similar. Therefore, no new long-term regional emissions would result from implementation of Build Alternative 2.	None required.	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Air Quality (Permanent)	quality through a reduction in congestion, its air quality impacts are considered potentially significant.				
Noise (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to noise.	Project construction has the potential to create temporary noise impacts from the transport of construction crew, equipment and materials, and noise generated during excavation, grading, and roadway construction Construction-related ground-borne vibration could result from construction equipment.	Project construction has the potential to create temporary noise impacts from the transport of construction crew, equipment and materials, and noise generated during excavation, grading, and roadway construction Construction-related ground-borne vibration could result from construction equipment.	Minimization measures include: Compliance with the California Department of Transportation's (Department) Standard Specifications, "Sound Control Requirements" will reduce the temporary impacts.	Less than significant.
Noise (Permanent)	Predicted future noise levels at sensitive receptors exceed existing levels by approximately 1 to 2 A-weighed decibels (dBA). This increase is considered less than significant.	Predicted future noise levels at sensitive receptors do not result in significant increases except for receptor 31 K5.	Predicted future noise levels at sensitive receptors do not result in significant increases except for receptor 31 K5.	Mitigation measure includes: N-1 To reduce permanent significant noise impacts to Receptors 31 K5 to below a level of significance, the Department shall offer interior noise mitigation	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Noise (Permanent)				measures such as installation of double-paned windows and a mechanical heating and cooling system (air conditioning).	
Energy (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no energy consumption impacts.	Consumption of fossil fuels and electricity would occur at typical amounts, and excesses in consumption are not expected.	Consumption of fossil fuels and electricity would occur at typical amounts, and excesses in consumption are not expected.	None required.	Less than significant.
Energy (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no energy consumption impacts.	Build Alternative 1 would not affect traffic volumes; therefore, it would not affect energy consumption.	Build Alternative 2 would not affect traffic volumes; therefore, it would not affect energy consumption.	None required.	No Impact.
Natural Communities (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to natural communities.	Build Alternative 1 would not result in the removal of sensitive plant communities because none are found within or immediately adjacent to the project disturbance limits.	Build Alternative 2 would not result in the removal of sensitive plant communities because none are found within or immediately adjacent to the project disturbance limits.	None required.	No impact.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Natural Communities (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to natural communities.	Build Alternative 1 would not result in the removal of sensitive plant communities because none are found within or immediately adjacent to the project disturbance limits.	Build Alternative 2 would not result in the removal of sensitive plant communities because none are found within or immediately adjacent to the project disturbance limits.	None required.	No impact.
Wetlands and Other Waters of the United States (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to wetlands or other waters of the United States (U.S.).	The proposed project would result in 0.001 acre (ac) of temporary impacts to nonwetland waters of the United States (U.S.). This 0.001 ac of temporary impacts is also potentially subject to California Department of Fish and Game (CDFG) jurisdiction. An additional 0.001 ac of streambed habitat potentially subject to CDFG jurisdiction will be temporarily impacted. Temporary impacts to CDFG potentially jurisdictional streambed total 0.002 ac.	The proposed project would result in 0.001 acre (ac) of temporary impacts to nonwetland waters of the United States (U.S.). This 0.001 ac of temporary impacts is also potentially subject to California Department of Fish and Game (CDFG) jurisdiction. An additional 0.001 ac of streambed habitat potentially subject to CDFG jurisdiction will be temporarily impacted. Temporary impacts to CDFG potentially jurisdictional streambed total 0.002 ac.	Minimization measures include: All Best Management Practices (BMPs) would be in place during construction according to the Storm Water Pollution Prevention Plan (SWPPP). A qualified biologist shall be designated responsible for overseeing biological monitoring, regulatory compliance, and restoration activities associated with the proposed project in accordance with the adopted measures, applicable regulations and laws, and environmental permit	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Wetlands and Other Waters of the United States (Temporary)		Construction of the proposed project will directly and permanently affect 0.056 acre (ac) of potential jurisdictional waters subject to United States Army Corps of Engineers (ACOE) jurisdiction, 0.021 ac of nonwetland water of the United States (U.S.), and approximately 0.035 ac of wetland waters of the U.S. 0.085 ac of streambed potential subject to California		conditions. Biological resources shall be protected during construction. To ensure this protection, a Biological Resources Construction Plan that provides for the protection of the resource and establishes the monitoring requirements will be completed to be reviewed and approved by the resource agencies prior to ground disturbance.	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Wetlands and Other Waters of the United States (Temporary)		Department of Fish and Game (CDFG) jurisdiction will be directly and permanently affected. This area is not considered riparian.			
Wetlands and Other Waters of the United States (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to wetlands or other waters of the United States (U.S.).		Construction of the proposed project will directly and permanently affect 0.056 acre (ac) of potential jurisdictional waters subject to United States Army Corps of Engineers (ACOE) jurisdiction, 0.021 ac of nonwetland water of the U.S., and approximately 0.035 ac of wetland waters of the U.S. 0.085 ac of streambed potential subject to CDFG jurisdiction will be directly and permanently affected. This area is not considered riparian.	Compensation measures include: The Department shall assume responsibility for compensation of impacts to biological resources. The project would result in permanent impacts to Waters of the United States (waters of the U.S.) requiring a Letter of Permission (LOP) from the United States Army Corps of Engineers (ACOE) to authorize the discharge of dredged and/or fill materials into waters of the U.S., pursuant to Section 404 of the Clean Water Act (CWA). Minimization measures include:	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Wetlands and Other Waters of the United States (Permanent)				The drainage features shall be replaced by drainage pipes that tie into the existing storm drain system. Impacts to wetland waters of the United States shall be offset by compensation consisting of wetland creation at a minimum 1:1 ratio.	
Plant Species (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to plant species.	There are no special-status plant species on the project site. Therefore, Build Alternative 1 would not result in temporary impacts on special-status plant species. However, temporary effects may occur as ground disturbance activities occur within or near the drip line of the oak trees at "The Oaks" property	There are no special-status plant species on the project site. Therefore, Build Alternative 2 would not result in temporary impacts on special-status plant species. However, temporary effects may occur as ground disturbance activities occur within or near the drip line of the oak trees at "The Oaks" property	Avoidance measures include: Protective fencing shall be placed around the dripline of oaks not identified for removal to prevent compaction of the root zone and designated as an environmentally sensitive area (ESA). In addition, trees in containers will be relocated prior to the start of construction. Minimization measures include: If any special-status	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Plant Species (Temporary)				plants are observed within the Biological Study Area (BSA) during preconstruction surveys, the locations of the populations and an estimation of the population size shall be mapped and shown on construction drawings. This information shall be used for appropriate avoidance during construction. If a species is to be avoided during construction, it shall be shown as an environmentally sensitive area (ESA) on the construction plans. If the population cannot be avoided during construction, this information shall be used for appropriate seed collection and salvage measures.	
Plant Species (Permanent)	The No Build Alternative does not involve any construction. Therefore, there	Eight coast live oak trees may be impacted by ground disturbance activities within the dripline of the trees, associated with roadway widening. Two of	Eight coast live oak trees may be impacted by ground disturbance activities within the dripline of the trees, associated with roadway	Compensation measures include: Impacts to coast live oak trees will be	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Plant Species (Permanent)	would be no impact to plant species.	these coast live oak trees are anticipated to require removal. The proposed project will result in impacts to 111 trees.	widening. Two of these coast live oak trees are anticipated to require removal. The proposed project will result in impacts to 111 trees.	compensated at a minimum 1:1 ratio. Impacts to all trees will be compensated in accordance with the City of San Juan Capistrano's Tree Preservation Ordinance.	
Animal Species (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to animal species.	Construction activities may result in a temporary noise impact to nesting birds. Temporary impacts to birds nesting within or adjacent to the BSA may occur if construction, particularly vegetation clearing, occurs during the nesting season. Small mammals, reptiles, and amphibians and other animals of slower mobility that live in the BSA may be temporarily affected as habitat is altered or removed. Lighting may be installed during night work that may temporarily disrupt animal behavior (including foraging and nesting); however, lighting will be shielded away from natural areas.	Construction activities may result in a temporary noise impact to nesting birds. Temporary impacts to birds nesting within or adjacent to the BSA may occur if construction, particularly vegetation clearing, occurs during the nesting season. Small mammals, reptiles, and amphibians and other animals of slower mobility that live in the BSA may be temporarily affected as habitat is altered or removed. Lighting may be installed during night work that may temporarily disrupt animal behavior (including foraging and nesting); however, lighting will be shielded away from natural areas.	Avoidance and minimization measures include: If feasible, vegetation removal will be avoided during the primary nesting season for local birds (February 15 through September 1) and most raptors, which are protected by the Migratory Bird Treaty Act (MBTA) and Section 3503.5 of the California Fish and Game Code. If vegetation removal must occur during this period, then preconstruction surveys shall be conducted surveyed by a qualified biologist in the appropriate habitats no more than seven	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Animal Species (Temporary)		During construction, there may be indirect effects to riparian-dependent species downstream of the BSA, including minimal increases to sediment levels in tributary drainages to San Juan Creek, minimal changes in water temperature, flow velocity, chemistry, or associated terrestrial/aquatic vegetation that would reduce the habitat quality for riparian-dependent species.	During construction, there may be indirect effects to riparian-dependent species downstream of the BSA, including minimal increases to sediment levels in tributary drainages to San Juan Creek, minimal changes in water temperature, flow velocity, chemistry, or associated terrestrial/aquatic vegetation that would reduce the habitat quality for riparian-dependent species.	days prior to clearing within and up to approximately 50 feet (ft) from the project boundary or an area coordinated with the resource agencies in order to identify nesting birds and/or raptors within or adjacent to the proposed project. In the event of discovery of active nests in the areas to be cleared, protective measures as outlined by the qualified Biologist shall be taken, as coordinated with the resource agencies. Clearing and grubbing limits may be established up to approximately 500 ft in any direction of nests, or other buffer distance coordinated with the resource agencies. In order to avoid and minimize the effects of lighting on wildlife, construction lighting	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Animal Species (Temporary)				shall be shielded away from natural areas as directed by the project engineer.	
				To reduce impacts to wildlife, all construction-related activities shall be confined to the proposed impact boundaries by installing fencing along the boundary in locations where the impact area abuts vegetated areas to prevent any construction activities from encroaching into adjacent habitat areas. In addition, construction access points shall be limited in proximity to the potential habitat for wildlife to the maximum extent feasible as directed by the project engineer.	
Animal Species	The No Build Alternative does not	Due to the removal of 111 trees, construction of the Build	Due to the removal of 111 trees, construction of the	Compensation measures include:	Less than significant.
(Permanent)	involve any construction. Therefore, there	Alternative would result in the removal of habitat that may provide nesting and foraging	Build Alternative would result in the removal of habitat that may provide nesting and	Impacts to coast live oak trees will be	

State Route 74 Lower Ortega Highway Widening

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Animal Species (Permanent)	would be no impact to animal species.	opportunities for a variety of species.	foraging opportunities for a variety of species.	compensated at a minimum 1:1 ratio through off-site replacement. Impacts to all trees will be mitigated in accordance with the City of San Juan Capistrano's (City) Tree Preservation Ordinance.	
Threatened and Endangered Species (Temporary)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to threatened and endangered (T/E) species.	There are no State or federal Threatened and Endangered (T/E)-listed species in the Biological Study Area (BSA); therefore, no temporary impacts to T/E species are anticipated as a result of Build Alternative 1.	There are no State or federal Threatened and Endangered (T/E)-listed species in the Biological Study Area (BSA); therefore, no temporary impacts to T/E species are anticipated as a result of Build Alternative 2.	None required.	No impact.
Threatened and Endangered Species (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to threatened and endangered (T/E) species.	There are no State or federal Threatened and Endangered (T/E)-listed species in the Biological Study Area (BSA); therefore, no permanent impacts to T/E species are anticipated as a result of Build Alternative 1.	There are no State or federal Threatened and Endangered (T/E)-listed species in the Biological Study Area (BSA); therefore, no permanent impacts to T/E species are anticipated as a result of Build Alternative 2.	None required.	No impact.
Invasive Species (Temporary)	The No Build Alternative does not involve any construction.	The project has the potential to spread invasive species by the entering and exiting of construction equipment	The project has the potential to spread invasive species by the entering and exiting of construction equipment	Minimization measures include: Bare soil will be	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Invasive Species (Temporary)	Therefore, there would be no impact to invasive species.	contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway.	contaminated by invasives, the inclusion of invasive species in seed mixtures and mulch, and the improper removal and disposal of invasive species so that seed is spread along the highway.	landscaped with California Department of Transportation (Department)- recommended seed mix from locally adopted species to preclude the invasion of noxious weeds. In compliance with the Executive Order on Invasive Species, EO 13112, and subsequent guidance from the Federal Highway Administration (FHWA), the landscaping and erosion control measures included in the project will not use species listed as noxious weeds, and no invasive species will be planted within the state right-of-way or in areas where the species may enter a drainage area. In areas of particular sensitivity, extra precautions will be taken if invasive species are	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact No I	Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
nvasive Species Temporary)				found in or adjacent to the construction areas. These include the inspection and cleaning of construction equipment, and eradication strategies to be implemented should an invasion occur. Before mobilizing to arrive at the site and before leaving the site, construction equipment will be cleaned of mud or debris that may contain invasive plants and/or seeds, and inspected to reduce the potential of spreading noxious weeds. To ensure implementation of these measures, the project contractor shall provide a weed abatement program to be approved by the Department engineer prior to the start of ground disturbance.	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Invasive Species (Temporary)				materials (e.g., propagules and seed) adapted to local conditions in order to increase the likelihood that revegetation will be successful and to maintain the genetic integrity of the local ecosystem. Seed purity will be certified by planting seed labeled under the California Food and Agricultural Code or seed tested within a year by a seed laboratory certified by the Association of Official Seed Analysts or by a seed technologist certified by the Society of Commercial Seed Technologists.	
				Trucks with loads carrying vegetation will be covered, and vegetative materials removed from the site will be disposed of, in	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Invasive Species (Temporary)				accordance with all applicable laws and regulations.	
Invasive Species (Permanent)	The No Build Alternative does not involve any construction. Therefore, there would be no impact to invasive species.	Invasive species have the potential to be imported to the project area by contaminated construction equipment or imported materials such as soils. The dispersal of invasive species propagules in the Biological Study Area (BSA) may be furthered by roadway vehicles, with inadvertent mixing of invasive species in seed mixes applied adjacent to the highway and the spread of invasive species during weed-control programs such as mowing. The increased risk of introduction or spread of invasive species would occur only during construction.	Invasive species have the potential to be imported to the project area by contaminated construction equipment or imported materials such as soils. The dispersal of invasive species propagules in the Biological Study Area (BSA) may be furthered by roadway vehicles, with inadvertent mixing of invasive species in seed mixes applied adjacent to the highway and the spread of invasive species during weed-control programs such as mowing. The increased risk of introduction or spread of invasive species would occur only during construction.	See minimization measures above.	Less than significant.
Cumulative	The No Build Alternative does not involve any construction. Therefore, there would be no temporary cumulative impacts. An increase	The Build Alternatives will contribute to cumulative changes in the natural and built environment, however, these contributions are considered less than significant with implementation of project avoidance, minimization.	The Build Alternatives will contribute to cumulative changes in the natural and built environment, however, these contributions are considered less than significant with implementation of project	Measures noted in individual sections as listed above.	Less than significant.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Cumulative	in 2035 traffic is associated with the No Build Alternative, including increased congestion and delays. The No Build Alternative would contribute to cumulative traffic, noise, and air quality impacts, however, this contribution is considered to be less than significant.	and/or mitigation measures.	avoidance, minimization, and/or mitigation measures.		
Climate Change	Traffic volumes would continue to increase under the No Build Alternative resulting in an increase in regional green house gas emissions.	Regional green house gas emissions would remain similar under Build Alternative 1 when compared to the No Build conditions.	Regional green house gas emissions would remain similar under Build Alternative 2 when compared to the No Build conditions.	Minimization Measures: Landscaping will use reclaimed water, where possible. Currently 30 percent of the electricity used in California is used for the treatment and delivery of water. Use of reclaimed water helps conserve this energy, which reduces GHG emissions from electricity production. Landscaping reduces surface warming and through photosynthesis	It is too speculative to make a determination regarding the projects direct impact to climate change.

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Climate Change				decreases CO ₂ . Trees removed as a result of the proposed project will be replaced within the right-of-way or in suitable locations within the community or greater region. The use of lighter color surfaces such as Portland cement, helps to reduce the albedo effect and cool the surface; in addition, the Department has been a leader in the effort to add fly ash to Portland cement mixes. Adding fly ash reduces the GHG emissions associated with cement production. Use of this would be in accordance with the Department's specifications and design standards and could be used in areas such as curb/gutter, retaining walls, driveways, and sidewalks.	

Table S-1 Summary of Potential Impacts by Alternative

Potential Impact	No Build Alternative	Build Alternative 1	Build Alternative 2	Avoidance, Minimization, and Mitigation Measures (Measures that are numbered are considered Mitigation Measures)	Build Alternatives 1 and 2 Level of Significance
Climate Change				According to Caltrans Standard Specification Provisions, idling time for lane closure during construction is restricted to ten minutes in each direction; in addition, the contractor must comply with Air Quality Manage- ment District's rules, ordinances, and regulations in regards to air quality restrictions. Caltrans and the California Highway Patrol are working with regional agencies to implement Intelligent Transportation Systems (ITS) to help manage the efficiency of the existing highway sys- tem. ITS is commonly referred to as elec- tronics, communications, or information process- ing used singly or in combination to improve the efficiency or safety of a surface transporta- tion system.	

Table S-2 Required Permits, Reviews, and Approvals

Agency	Permit/Approval	Status
ACOE	Section 404 Letter of Permission (LOP) or Nationwide Permit (NWP) 14	Department is to obtain letter or permit.
CDFG	Section 1602 Streambed Alteration Agreement	Department is to obtain Agreement.
RWQCB	401 Water Quality Certification	Department is to obtain certification.

ACOE = United States Army Corps of Engineers
CDFG = California Department of Fish and Game
Department = California Department of Transportation
RWQCB = Regional Water Quality Control Board

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